Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show elements according to the reference numerals as described in the specification. Specifically page 10 of the substitute specification starting on line7 dealing with Figure 8. Many of the reference numerals cited in this passage are not shown in the drawing, and it is unclear how the various parts operate relative to one another. The description of Figure 10 has similar problems, for example reference numerals 49xx, 49l,61k are not found in Figure 10. In fact none of the reference numerals found in Figure 10 are described in the section of the specification dealing with Figure 10. These problems appear to be found in almost every Figure and new drawings showing each reference numeral as set forth in the specification must be submitted in response to this action. The specification should not be amended as the drawings support the spceifcation and not the other way around. The drawings must be amended to incorporate all reference numerals found in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7 and 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. There is no disclosure on the duration of providing air to a particular zone for a particular time. The general method of providing different control templates does not provide enablement for any particular time of operation.

Claim 10 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

There is no disclosure as to providing air at any particular pressure. The general disclosure of providing low pressure air is not enabling of the claim to a specific pressure.

Claim 15 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The lower ply is not discloses as being a PVC material, but rather a PVC coated material. Clarification is required.

Claims 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear if the applicant is wishing to claim the apparatus or its method of manufacture. As the claims depend from an apparatus claim they should only provide additional structure to narrow the scope of the claim from which they depend. In the art rejections below they are treated as further defining the fluidized beds as having a lower air tight material and an upper air permeable material. The steps of manufacture should be deleted from the claims and only structure should remain. Clarification is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al. in view of Ivchenko et al. and further in view of Bonnel. Regarding claim 1 Bailey et al. US 3,236,422 teaches a method of emptying a container comprising:

providing a substantially conical bottom in a container;

providing a plurality of pie shaped air permeable zones edge to edge with one another;

said air permeable zones fluidizing the bulk material near each of said zones to increase flow of the material.

Bailey et al. does not teach intermittent cycling of the pneumatic pressure or a donut at the outlet of the container.

Ivchenko et al. US 3,669,317 teaches a method of emptying a container comprising the steps:

providing a sloped lower wall in a container;

providing a pneumatic membrane wall liner along a lower portion of said lower wall;

providing a series of donut shaped inflatable structures near the outlet of the container;

intermittently inflating the donuts structures while providing air to the pneumatic membranes to fluidize bulk material in the vicinity of the membrane. Ivchenko et al. do not teach inflating one section at a time in series.

Bonnel teaches a method and apparatus for fluidizing bulk material comprising:

providing a conical container with a series of air permeable zones;

providing air to said zones such that bulk material in the immediate vicinity of the zones is fluidized such that is flows under the force of gravity;

wherein the zones are pressurized alternately one to another to increase the flow of material from the container. It would have been obvious at the time of invention to modify the methods taught by Bailey et al. by providing donut structures as taught by Ivchenko et al. in order to loosen stuck material at any and all points in the discharge cone in a manner that is easy to retrofit to existing containers and to alternate the air in the various sections in series as taught by Bonnel in order to minimize bridging of the material being unloaded.

Claim Rejections - 35 USC § 103

Claims 11-18, 25-27,29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over bailey et al. in view of Ivchenko et al. Regarding claim 11 Bailey et al. teaches a device for emptying a container comprising:

a container with a substantially conical bottom in a container;

at least 5 pie shaped air permeable zones edge to edge with one another;

said air permeable zones fluidizing the bulk material near each of said zones to increase flow of the material.

Bailey et al. does not teach a donut at the outlet of the container. Ivchenko et al. teaches device for emptying a container comprising:

a sloped lower wall in a container;

a pneumatic membrane along a lower portion of said lower wall;

donut shaped inflatable structures near the outlet of the container. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Bailey et al. with a doughnut shaped membrane as taught by Ivchenko et al. in order to help move material in the vicinity of the exhaust duct.

Regarding claims 12-14,16 and 18 Bailey et al. also teach the fluidized bed zones are made of webbed fabric and are secured to the container in a spaced substantially air tight manner.

Regarding claim 17 Bailey et al. teaches sewn seams on their pie shaped zones and Ivchenko et al. also teach their doughnut shaped zone is circumferentially formed.

Regarding claim 15 Bailey et al. teach a fluidized bed zone with a two ply structure where the upper surface is air permeable and the lower surface if not air permeable. While they do not teach the lower surface as being PVC coated material this would have been an obvious design choice to an ordinary mechanic at the time of invention. Bailey leaves it to this ordinary mechanic to choose the non air permeable material and as PVC coated material is well known to be non air permeable it would have been within the knowledge of an ordinary mechanic.

Regarding claim 25 Both Bailey et al. and Ivchenko et al. teach a blower for providing air to the fluidized bed zones in their respective devices.

Regarding claims 26 and 27 Bailey et al. also teach a rotary controller for distributing air to the various discrete zones in their device as well as a baffle plate in each zone for diffusing the air as it enters the zone.

Regarding claims 29 and 30 Bailey et al. also teach an embodiment where each discrete fluidized zone comprises less than 20 % of the area of the container bottom wherein the zones equal 10 in number. See Figure 3.

Regarding claim 31 Bailey et al. teach a device which may be considered a silo.

Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al. and Ivchenko et al. as applied to claim 11 above, and further in view of Dibble et al. Bailey et al. and Ivchenko et al. teach the limitations of claim 11 as above, Bailey et al. also teaches the container bottom forming an angle with a horizontal plane that is less than 60 degrees and connecting the various webbed material via conventional means which would encompass a sewn seam. Bailey et al. and Ivchenko et al. do not teach a side wall integrated with the fluidized bed zones. Dibble et al. US 5,975,642 teaches a container for bulk material comprising:

a generally conical outlet for the container that forms an angle of less than 60 degrees from a horizontal plane;

a flexible sidewall liner within said container;

wherein said sidewall liner is connected to said conical section via a seam to form an integrated liner. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Bailey et al. and Ivchenko et al. with a complete liner as taught by Dibble et al. in order to keep the material free of contamination during transport and dispensing.

Claim 32 rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al., Ivchenko et al. and Dibble et al. as applied to claim 21 above, and further in view of

the admitted prior art. Bailey et al., Ivchenko et al. and Dibble et al. teach the limitations of claim 21 as above, they do not teach an inlet filter. The admitted prior art as presented at lines 19-23 on page 5 discloses providing a filter top on a standard container where a 150 square foot filter is normally used. It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the device taught by Bailey et al., Ivchenko et al. and Dibble et al. with a filter as taught by the admitted prior art as this is a normal part of the structure of the container the instant invention is designed to be used with.

Response to Amendment

No amendments were presented in response to the previous office action.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. New rejections are set forth taking into account the applicant arguments.

Conclusion

1. New drawings matching the specification are required.
2. All non-enabled claims should be cancelled.
3. New art rejections have been added.
4. This action is not being made final.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are listed on the attached PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles A. Fox whose telephone number is 571-272-6923. The examiner can normally be reached on 7:00-4:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Charles A. Fox/
Primary Examiner, Art Unit 3652